

WHAT IS CLAIMED IS:

1. A method for managing requests in a mobile device system, comprising the steps of:
  - 5 assigning a priority to each queue in a set of priority queues;  
inputting requests into said set of priority queues based on a priority associated with each request;
  - merging multiple requests in said set of priority queues into a merged request based on priorities associated with said multiple requests and a destination for said multiple requests; and
  - 10 sending said merged request to a request queue for a connection in a connection pool for said destination.
- 15 2. The method of claim 1, further comprising the steps of:
  - assigning a high priority to a request if the request is user initiated; and
  - assigning a low priority to a request if the request is not user initiated.
- 20 3. The method of claim 1, wherein said merging step includes the steps of:
  - multiplexing said multiple requests; and
  - 25 selectively building said merged request based on said multiplexing.
4. The method of claim 1, wherein said sending includes the step of:
  - 25 sending a dummy request to extend the connection duration with said destination.
5. The method of claim 1, wherein said sending step includes the steps of:
  - calculating a total processing time of each request queue for each connection in said connection pool; and
  - 30 sending a next request into a request queue having the lowest total processing time in said connection pool.
6. The method of claim 1, further comprising the steps of:
  - initiating a sampling process to sample all requests;
  - 35 compiling a first list of frequently requested destinations based on said sampling process;

assigning a set of connections to each destination on said first list; and  
dynamically updating said first list and said set of connections assigned to each  
destination.

5 7. The method of claim 6, wherein said step of assigning a set of connections  
includes the steps of:

ranking destinations in said first list from a most frequently requested  
destination to a least frequently requested destination; and

10 assigning a set of request queues for a set of connections to each destination on  
said first list in accordance with said destination's position on said first list.

8. The method of claim 6, wherein said step of dynamically updating includes the  
steps of:

15 initiating a next sampling process to sample all requests;

compiling a new list of frequently requested destinations based on said next  
sampling process;

comparing said first list to said new list;

updating said first list based on said comparing step; and

20 reassigning said set of connections to each destination on said first list based  
on said updating step.

9. The method of claim 1, wherein a destination is a server identified by a domain  
name.

25 10. The method of claim 1, wherein a destination is a database.

11. A computer program product for managing requests in a mobile device system,  
comprising:

30 logic code for assigning a priority to each queue in a set of priority queues;

logic code for inputting requests into said set of priority queues based on a  
priority associated with each request;

logic code for merging multiple requests in said set of priority queues into a  
merged request based on priorities associated with said multiple requests and a  
destination for said multiple requests; and

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logic code for sending said merged request to a request queue for a connection in a connection pool for said destination.

5        12.     The computer program product of claim 11, further comprising:  
             logic code for assigning a high priority to a request if the request is user  
             initiated; and  
             logic code for assigning a low priority to a request if the request is not user  
             initiated.

10       13.     The computer program product of claim 11, wherein said logic code for  
             merging includes:  
             logic code for multiplexing said multiple requests; and  
             logic code for selectively building said merged request based on said  
             multiplexing.

15       14.     The computer program product of claim 11, wherein said logic code for  
             sending includes:  
             logic code for sending a dummy request to extend the connection duration with  
             said destination.

20       15.     The computer program product of claim 11, wherein said logic code for  
             sending includes:  
             logic code for calculating a total processing time of each request queue for  
             each connection in said connection pool; and  
25       logic code for sending a next request into a request queue having the lowest  
             total processing time in said connection pool.

30       16.     The computer program product of claim 8, further comprising:  
             logic code for initiating a sampling process to sample all requests;  
             logic code for compiling a first list of frequently requested destinations based  
             on said sampling process;  
             logic code for assigning a set of connections to each destination on said first  
             list; and  
35       logic code for dynamically updating said first list and said set of connections  
             assigned to each destination.

17. The computer program product of claim 16, wherein said logic code for assigning a set of connections includes:

logic code for ranking destinations in said first list from a most frequently requested destination to a least frequently requested destination; and

logic code for assigning a set of request queues for a set of connections to each destination on said first list in accordance with said destination's position on said first list.

18. The computer program product of claim 16, wherein said logic code for dynamically updating includes:

logic code for initiating a next sampling process to sample all requests;

logic code for compiling a new list of frequently requested destinations based on said next sampling process;

logic code for comparing said first list to said new list;

logic code for updating said first list based on said comparing; and

logic code for reassigning said set of connections to each destination on said first list based on said updating.

~~19.~~ An apparatus for managing data in a mobile device system, comprising:

a request receiver for receiving requests;

a set of priority queues for storing said requests;

a dispatch manager for dispatching said requests from said set of priority queues; and

a set of request queues, each request queue being assigned to a connection;

wherein said requests are stored into said priority queue based on priorities associated with each request and said dispatch manager sends each of said requests into a request queue for a connection based on a destination of each request.

20. The apparatus of claim 19, wherein said dispatch manager merges multiple requests into a merged request before sending said merged request to a request queue for a connection in a connection pool.

21. The apparatus of claim 20, wherein said dispatch manager includes multiplexors for multiplexing said multiple requests into said merged request based on priorities assigned to said multiple requests when said multiple requests are destined to a destination.

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